WO 03/089513 PCT/KR03/00749

## What is claimed is:

5

10

15

25

30

1. A thermoplastic flame retardant resin composition comprising:

- (A) about 40 to 95 parts by weight of a styrenic resin;
- (B) about 5 to 60 parts by weight of a polyphenylene ether;
- (C) about 0.1 to 40 parts by weight of a rubber modified polystyrene resin containing about 40 to 65 % by weight of a rubber and about 0.1 to 8 % by weight of acrylonitrile in the polystyrene resin excluding rubber based on 100 parts by weight of the sum of (A) and (B); and
- (D) about 5 to 30 parts by weight of an aromatic phosphoric acid ester compound based on 100 parts by weight of the sum of (A) and (B).
- 2. The thermoplastic flame retardant resin composition as defined in claim 1, wherein said styrenic resin (A) is selected from the group consisting of polystyrene resin, rubber modified polystyrene resin and a mixture thereof.
- 3. The thermoplastic flame retardant resin composition as defined in claim 2, wherein said styrenic resin (A) is polystyrene.
- 4. The thermoplastic flame retardant resin composition as defined in claim 2, wherein said styrenic resin (A) is a rubber modified polystyrene resin.
  - 5. The thermoplastic flame retardant resin composition as defined in claim 1, wherein said rubber modified polystyrene resin (C) further comprises less than 40 parts by weight of a monomer selected from the group consisting of acrylic acid, methacrylate, maleic anhydride, and N-substituted maleimide, per 100 parts by weight of said rubber modified polystyrene resin.
  - 6. The thermoplastic flame retardant resin composition as defined in claim 1, wherein said rubber modified polystyrene resin (C) comprises 0.1 to 5 % by weight

WO 03/089513 PCT/KR03/00749

of an acrylonitrile in the polystyrene resin excluding rubber.

5

7. The thermoplastic flame retardant resin composition as defined in claim 1, wherein said aromatic phosphoric acid ester (D) is represented by following formula (I):

wherein  $R_1$ ,  $R_2$  and  $R_3$  independently of one another are hydrogen or  $C_{1-4}$  alkyl; X is a  $C_{6-20}$  aryl group or alkyl-substituted  $C_{6-20}$  aryl group that are derivatives from a dialcohol derivative such as resorcinol, hydroquinol, bisphenol-A and bisphenol-S; and n is  $0\sim4$ .

8. The thermoplastic flame retardant resin composition as defined in claim 1,
wherein said resin composition further comprises an anti-dripping agent, an impact
modifier, an inorganic filler, a heat stabilizer, an anti-oxidants, a light stabilizer, a
pigment, and/or dye.